

REQUEST FOR RECONSIDERATION UNDER 37 C.F.R. § 1.116
EXPEDITED PROCEDURE
GROUP 1742
PATENT APPLICATION

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of

Docket No: Q83621

Jean BEGUINOT

Appln. No.: 10/509,103

Group Art Unit: 1742

Confirmation No.: 9952

Examiner: JIE YANG

Filed: September 27, 2004

For: STEEL BLOCK FOR THE MANUFACTURE OF MOULDS FOR THE INJECTION
MOULDING OF PLASTICS MATERIAL OR FOR THE MANUFACTURE OF
METALWORKING PARTS

REQUEST FOR RECONSIDERATION UNDER 37 C.F.R. § 1.116
AND
REQUEST FOR INTERVIEW

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Commissioner for Patents

P.O. Box 1450

Alexandria, VA 22313-1450

Sir:

Applicant files this Request for Reconsideration in response to the **final** Office Action mailed August 22, 2007. Examiner Yang issues the following statutory prior art rejections:

- (1) Claims 1-10 are rejected under 35 U.S.C. § 103(a) as being obvious over JP '542, in view of US '116 and US '421; and
- (2) Claim 11 is rejected under 35 U.S.C. § 103(a) as being unpatentable (obvious) over JP '542 in view of US '116 and US '421 and further in view of US '491.

Applicant respectfully **traverses** these rejections.

These rejections are substantially the same as those in the previous Office Action with the exception that US '421 is combined with other references in the rejection of at least claims 1-8 and 10. Thus, Applicant hereby incorporates by reference Applicant's still valid previous arguments traversing the rejections under 35 U.S.C. § 103(a).

Since the Examiner's rejections are entirely dependent on the proper interpretation of the disclosure of US '421, Applicant provides the following comments specifically directed to US '421. In this regard, as a general overview, Applicant respectfully submits that the "precipitation hardening steel" of US '421 is irrelevant to Applicant's claimed invention (which is not such a steel), and that the example "H" upon which the Examiner relies is not a true example, i.e., is not an example which at all is supported by or conforms to the disclosure of US '421.

* * *

The limitation of Si less than 0.15% cannot be obvious in view of US '421 because the steel described in this reference is not a steel comparable to the steel according to the claimed invention. Moreover, the example H of US '421 used by the Examiner is not a true example of the steel otherwise described in the reference.

By the Examiner's own admission (see Office Action at page 3), the steel described in US '421 is a "precipitation hardening steel" (see the Abstract in column 1, lines 47-52) containing less than 0.18% of C, 0.5 to 1.5% of Al, 0.7 to 1.7% of Cu, these elements being necessary to obtain "precipitation hardening" (see column 4, lines 55-67), and 0.15 to 1% of Si necessary to control the hardness at the "solution treated state", together with Mn in a range of 0.15 to 1.00% so as not to damage the ductility and the toughness after aging (see column 4, lines 22-29).

The steel according to the claimed invention is **not** a "precipitation hardening steel," because it does not contain enough aluminum or enough copper.

The "example" mentioned by the Examiner ("H" - Table 1) shows 0.15% C and 0.14% Si. That is, example H uses only 0.14% Si, i.e., less than 0.15%. Since according to US '421, Si has to be higher than 0.15%, the example H is not a true example. **Moreover**, as the steel of the example H contains 0.15% C, it contains less than the 0.18% C **required** by Applicant's claim 1.

The steels of the present invention and of US '421 are not comparable, and the effects of Si are not the same. The true teaching of the reference is that Si has to be higher than 0.15%, and a requirement of Applicant's claim 1 is that Si has to be less than 0.15%.

Therefore, Applicant does not understand how it would have been (or could be) obvious to use the teaching of US '421 to teach or even suggest Applicant's claimed invention which maintains Si less than 0.15%.

To augment and to reiterate the above analysis and arguments, Applicant offers the following additional comments for Examiner Yang's consideration:

(1) A "precipitation hardening steel" as defined in US '421 is a steel which is hardened starting from a "solution treated state", by an age-hardening treatment used to produce precipitation of intermetallic phases, NiAl phase and alpha'phase (with Cu). The solution treatment is heated around 900° C followed by cooling in air blast. The aging treatment is cooling in air after heating at 500° C for 5 hours. (See column 4, lines 39-47, 55-67, and column 5, lines 62-65). In this steel, silicon is used (more than 0.15% is necessary) in order to control the hardness at the solution treated state; moreover, it has to be 0.15 to 1% (see column 4, lines 22-28). The carbon has to be less than 0.18% for the reasons explained in column 4, lines 14-21;

(2) The steel according to the claimed invention is not a precipitation hardening steel. The Al and Cu contents are too low, and it is impossible to produce hardening by precipitation of intermetallic phases as in US '421. Moreover, the carbon is too high. The steel according to the claimed invention is hardened by quenching, i.e., by obtention of a martensitic or bainite-martensitic structure and tempering. The silicon is not useful to control the hardness at the solution treated state, because there is no solution treated state. But according to the claimed invention, silicon content has to be limited in order to improve the thermal conductivity of the steel; and

(3) The steel of US '421 is completely different from the steel of the claimed invention, the metallurgical mechanisms are completely different, and there are important differences in the chemical composition:

	US '421	Invention
C	0.05 - 0.18	0.18 - 0.4
Al	0.5 - 1.5	< 0.4
Cu	0.7 - 1.7	< 0.3
Ni	2.5 - 3.5	< 3 (This is important because more

than 2.5 of Ni (in combination with Al and Cu) is necessary to obtain precipitation hardening, but in the invention, it is not necessary to have Ni > 2.5.)

Thus, since US '421, in any combination with the other cited references, does not describe or even suggest **all of the limitations** of claim 1 and its dependent claims 2-11, Applicant respectfully submits that the prior art cited by the Examiner does not render *prima facie* obvious the subject matter of claims 1-11, whereby Applicant respectfully requests the Examiner to reconsider and withdraw all rejections and to find the application to be in condition for allowance with **claims 1-11**.

Request for Interview

However, if for any reason the Examiner feels that the application is not now in condition for allowance, Examiner Yang is respectfully requested to **call the undersigned attorney** to discuss any unresolved issues and to expedite the disposition of the application.

Applicant hereby petitions for any extension of time which may be required to maintain the pendency of this application, and any required fee for such extension is to be charged to Deposit Account No. 19-4880. The Commissioner is also authorized to charge any additional fees under 37 C.F.R. § 1.16 and/or § 1.17 necessary to keep this application pending in the Patent and Trademark Office or credit any overpayment to said Deposit Account No. 19-4880.

Respectfully submitted,

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Date: October 18, 2007